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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/598,263

08/23/2006

Johannes Jacobus Franciscus Geijtenbeek

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04/27/2009

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

LEE, BRENITRA M

ART UNIT

PAPER NUMBER

2889

MAIL DATE

DELIVERY MODE

04/27/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/598,263 | Applicant(s) GEIJTENBEEK ET AL. | |
| | Examiner BRENITRA M. LEE | Art Unit 4176 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the applicant's amendment filed on 30 January 2009. In virtue of this amendment, claims 1-14 are currently presented in the instant application.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding claims 1 and 14, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). For examination purposes, the examiner will interpret the claim limitation as the inert gas is Xenon (Xe).

4. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely

Art Unit: 4176

exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 4 recites the broad recitation "between 0 and 10%", and the claim also recites "in particular 0.5 and 7%" and "more in particular 1 and 6%" which is the narrower statement of the range/limitation. For examination purposes, the examiner will interpret the claim to have the limitation of the broader range. Furthermore, in the present instant, claim 6 recites the broad range "between 0.001 and 0.5 g/cm³", and the claim also recites "in particular between 0.025 and 0.3 g/cm³" which is the narrower statement of the range/limitation. For examination purposes, the examiner will interpret the claim to have the limitation of the broader range.

5.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2 and 4-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Jackson et al. (U.S. Patent 6,861,805 B2)

Art Unit: 4176

With respect to claim 1, as to be best interpreted, Jackson et al. disclose in Figs. 8-10 a metal halide lamp comprising a discharge vessel surrounded by an outer envelope (10) (Col. 4, line 23) with clearance and having a ceramic wall (24, 25) (Col. 4, lines 38-40) which encloses a discharge space (21) (Col. 4, line 49) filled with a filling comprising an inert gas (Col. 4, lines 49-50), comprising xenon (Xe) (Col. 9, lines 8-10), and an ionizable salt (Col. 5, line 20), wherein in said discharge space two electrodes (30, 40) (See Fig. 9) are arranged whose tips have mutual interspacing (See Fig. 9) so as to define a discharge path between them, characterized in that said ionizable salt is selected from a group consisting of NaI, TlI, CaI_2 , and X-iodide (See Col. 5, lines 20-21), wherein X is selected from a group consisting of rare earth metals (Col. 5, lines 20-21)

With respect to claim 2, Jackson et al. discloses all the limitations as expressly recited in claim 1, and further discloses, as to be best interpreted, X is selected from a group consisting of Dy, Ho, Tm (See Col. 5, lines 20-21)

hWith respect to claim 4, Jackson et al. discloses all the limitation as expressly recited in claim 1, and further discloses, the molar percentage ratio X-iodide/NaI +TlI + CaI_2 +X-iodide lies between 0 and 10% (Col. 8. lines 66-67 continuing to Col. 9, lines 1-2).

With respect to claim 5, Jackson et al. disclose all the limitations as expressly recited in claim 1, and further discloses, the molar percentage ratio X-iodide/NaI +TlI + CaI_2 +X-iodide) lies between 10 and 95% (Col. 8. lines 66-67 continuing to Col. 9, lines 1-2).

With respect to claim 6, Jackson et al discloses all the limitations as expressly recited in claim 1, and further discloses, the amount of NaI, TlI, CaI₂ and X-iodide lies between 0.001 and 0.5 g/cm³ (Col. 8, lines 66-67 continuing to Col. 9, lines 1-2).

With respect to claim 7, Jackson et al discloses all the limitations as expressly recited in claim 1, and further discloses, emitting light during stable nominal operation having a color temperature T_c above 3500K (Col. 3, lines 15-17), wherein the filling of the discharge space also comprises a halide selected from Mn and In (Col. 5, lines 61-67).

With respect to claim 8, Jackson et al discloses all the limitations as expressly recited in claim 1, and further discloses, the filling comprising Hg (Col. 8, lines 62-63).

With respect to claim 9, Jackson et al discloses all the limitations as expressly recited in claim 1, and further discloses, as to be best interpreted, the lamp has a wall load when in stable operation at rated power of at least 30 W/cm² (Col. 7, lines 45-46).

With respect to claim 10, Jackson et al discloses all the limitations as expressly recited in claim 1, and further discloses, at least one electrode extends inside the discharge vessel over a length forming a tip to bottom distance (t-b) between the discharge vessel wall and the electrode tip and which the tip to bottom distance (t-b) is at most 4.5 mm (Col. 8, lines 41-44).

With respect to claim 11, Jackson et al discloses all the limitations as expressly recited in claim 1, and further discloses, the discharge vessel has a rectangular cross section along the discharge path and wherein the tip to bottom distance (t-b) is at most 3.5 mm (Col. 8, lines 41-44).

With respect to claim 12, Jackson et al discloses all the limitations as expressly recited in claim 1, and further discloses, the filling of the discharge vessel is free of Cs.

With respect to claim 13, Jackson et al. discloses all the limitations as expressly recited in claim 1.

The recitation "The metal halide lamp of claim1 to be used in a vehicle headlamp" cited in lines 1-2 is not of patentable merit as it is directed to an intended use or a manner of operation. A claim containing a recitation with respect to a manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 4176

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson et al. (U.S. Patent 6,861,805 B2) in view of Kakisaka et al. (U.S. Patent Application Publication 2003)

With respect to claim 3, Jackson et al. discloses all the limitations as expressly recited in claim 1. Jackson et al. does not disclose X is selected from a group consisting of Ce, Pr, Nd.

Kakisaka et al. discloses, as to be best interpreted, X is selected from a group consisting of Ce, Pr, Nd (para. 0026, lines 4-6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form a metal halide lamp of Jackson et al. that incorporates the rare earth metal as taught by Kakisaka et al. that results in a high luminous efficiency, due to an increase in the load on the arc tube because of low vapor pressures of the rare earth metal (para. 0018, lines 1-5)

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Böröczki et al (U.S. Patent 6,536,918 B1) in view of Jackson et al. (U.S. Patent 6,861,805 B2).

With respect to claim 14, Böröczki et al. discloses in Fig. 1, a vehicle headlamp with a metal halide lamp (Col. 2, line 45; Col. 5, lines 31-34) comprising a discharge space (10) (Col. 2, line 67). Böröczki et al. does not disclose surrounding an outer envelope with clearance and having a ceramic wall which encloses a discharge space; filling said discharge space with a filling consisting of an inert gas, such as xenon (Xe),

Art Unit: 4176

and an ionizable salt, arranging in said discharge space two electrodes whose tips have a mutual interspacing so as to define a discharge path between them, and wherein said ionizable salt is selected from a group consisting of NaI, TlI, CaI_2 and X-iodide wherein X is selected from a group consisting of rare earth metals.

Jackson et al. discloses, as best interpreted, surrounding an outer envelope (10) (Col. 4, line 23) with clearance and having a ceramic wall (24, 25) (Col. 4, lines 38-40) which encloses a discharge space (21) (Col. 4, line 49); filling said discharge space with a filling consisting of an inert gas (Col. 4, lines 49-50), such as xenon (Xe) (Col. 5, line 13), and an ionizable salt (Col. 5, line 20), arranging in said discharge space two electrodes (30, 40) (See Fig. 9) whose tips have a mutual interspacing (See Fig. 9) so as to define a discharge path between them, and wherein said ionizable salt is selected from a group consisting of NaI, TlI, CaI_2 and X-iodide (See Col. 5, lines 20-21) wherein X is selected from a group consisting of rare earth metals (Col. 5, lines 20-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form a metal halide lamp used as a vehicle headlamp as taught by Böröczki et al. that incorporates the structural characteristics of Jackson et al. in order to exhibit excellent initial color consistency, superb stability over life, high luminous efficacy and longer lifetimes (Col. 3, lines 27-32).

Response to Applicant's Arguments

7. Applicant's arguments filed 30 January 2009 have been fully considered but they are not persuasive.

Art Unit: 4176

8. Applicant's arguments are as follows:

a. On page 8, lines 2-6, Applicant argues, by contrast with Jackson, the filling consists of an inert gas, such as xenon (Xe), and an ionizable salt and does not contain ⁸⁵Kr gases for assisting in lamp ignition. By contrast with Jackson, Applicant's ionizable salt is selected from the group consisting of NaI, TlI, CaI₂ and X-iodide, wherein X is selected from the group comprising rare earth metals.

b. On page 8, lines 26-29, Applicant argues, Jackson does not teach that the halide lamp is being used in a vehicle. As stated, above, Jackson does not teach the elements of claim 1. Since claims 13 and 14 incorporate the elements of claim 1, Jackson does not teach the elements of claims 13 and 14.

c. On page 9, lines 11-15, Applicant argues, Böröczki does not disclose the elements of Applicant's invention as recited in claims 13 and 14 and a person skilled in the art would not look to Böröczki to solve the problem of Applicants invention as recited in claims 13 and 14. Therefore, claims 13 and 14 are not rendered obvious over Jackson in view of Böröczki.

9. Examiner's responses are as follows:

a. In response to the Applicant's argument in (a), Jackson et al. discloses that ⁸⁵Kr is used in one of the preferred embodiments. However, the embodiment used for the rejection, states that no ⁸⁵Kr was included in the arc tube (Col. 5, lines 23-24). Jackson et al. discloses in Col. 5, lines 20-21 that the salts are NaI, TlI, CaI₂, and the rare earth iodides are DyI₃, HoI₃, TmI₃. Therefore, Jackson et al. discloses all the limitations set forth in claim 1. The claim stands rejected as anticipated by Jackson et al.

b. In response to the Applicant's argument in (b), as stated above, Jackson et al. discloses all the limitations of claim 1. Claim 13 is directed to an intended use or manner of operation, therefore, the limitations of the claim is not of patentable merit. Claim 14 has been amended and does not depend on claim 1.

c. In response to Applicant's argument in (c), claim 14 has been amended to be in independent form. Böröczki et al. discloses the ceramic metal halide lamp used as a vehicle headlamp. Jackson et al. discloses all the structural limitations, including the ionizable salts NaI, TlI, CaI₂ and the X-iodide, where X is a rare earth metal. It would have been obvious to one of ordinary skill at the time of the invention to employ the metal halide lamp of Jackson et al. as a vehicle headlamp. Therefore claim 14 stands rejected as unpatentable over Böröczki et al. in view of Jackson et al.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENITRA M. LEE whose telephone number is (571)270-7552. The examiner can normally be reached on Monday-Friday 7:30 am - 6:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minh-Toan Ton, can be reached on 571-272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 4176

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRENITRA M. LEE/
Examiner, Art Unit 2889

/Toan Ton/
Supervisory Patent Examiner
Art Unit 2889